

Department of Natural Resources Division of Oil, Gas and Mining

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February 22, 2023

TO: Utah Board of Oil Gas and Mining

THROUGH: Wayne Western – Mining Program Manager

FROM: Kim Coburn – Engineer

Phillip Jensen – Engineer

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SUBJECT: 2023 Reclamation Surety Amounts for Exploration and Small Mining Operations

Including Small Mine Three- and Five-Year Escalation

Rule R647-3-111.3.13 allows the Division to calculate the required surety for a small mining operation using the average dollars per acre costs for reclamation of similar operations as determined by the Division based upon approved surety amounts for current large mining operations. These average costs must be approved by the Board of Oil, Gas and Mining. This memorandum details the amounts recommended to the Board for the average costs to be used for small mines and exploration projects.

Small mine sites are areas with twenty or fewer acres of disturbance in unincorporated areas or ten or fewer acres in incorporated areas. For the purpose of calculating the cost per acre, the Division assumes there are no structures, that earthwork and revegetation will be required for each site, and earthwork and revegetation will be conducted at the same time, not in separate operations.

If a site has structures, including vent shafts or portals, the cost of structure removal will be calculated as a line item. Sites with unusual features, such as large underground openings, are calculated based on information from vendors and other sources, such as the Abandoned Mine Land Reclamation program.

For mine sites with five or fewer acres, the Division assumes that all reclamation work can be accomplished with an excavator and a pickup truck for support. For sites larger than five acres but smaller than ten acres, the Division assumes reclamation will require an excavator and a D-8 bulldozer with a pickup truck for support.

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In addition, the Division has introduced a Mini mine bond last year which is designed for the hobbyist. These are mines that are at most up to 2 acres in size where the work can be done in a day where the equipment rented from a typical hardware store for the maximum depth is 10 ft.

For sites that have received partial bond release for earthwork the Division assumes that surface preparation will be needed.

The reclamation cost estimates are escalated three or five years into the future for small mines using five years of the Average Means Historical Cost Index for Site Construction, National Average. Costs for exploration projects are escalated one year into the future then re-evaluated if an operator requests an extension for the project.

In the past the Division assumed a 150-mile mobilization/demobilization cost. Beginning in 2014, the Division has allowed the mob/demob cost to be decreased to a minimum of 50 miles (if there are at least three contractors that could conduct reclamation based within 50 miles of the site). The mob/demob costs should be increased as shown in the tables if the haul distance is greater than 50 miles.

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Exploration Notices

Project Size /	2023 Standard Surety Requirements		
Features	1-year escalation (thru 2024)	Comments	
"Mini" Mine	\$4,500 / acre	Up to two acres	
1 Acre (or less)	\$9,900 / acre	Minimum amount required; Includes \$3,200 mob / demob.	
Additional Acres	\$6,400 / acre (for projects under 5 acres) Projects over 5 acres may need more surety.	Partial acres rounded to next acre (e.g. 1.2 acres = 2 acres)	
Additional Mob / Demob	< 50 miles (one way) - no additional surety 51 - 100 miles (one way) - add \$1,600 101 - 150 miles (one way) - add \$3,500 151 - 200 miles (one way) - add \$4,800	In addition to surety for surface disturbance reclamation	
Drilling (dry)	\$1,100 mob / demob, plus \$250 / hole (surface plug)	In addition to surety for surface disturbance reclamation	
Drilling (wet), < 7-inch diameter < 2,500 feet depth	For holes less than 800 feet deep, \$8,700 mob / demob, plus \$5.50 / ft (subsurface plug) For holes 800 - 1,600 feet deep, \$13,000 mob / demob, plus \$6.00 / ft (subsurface plug) For holes 1,600 - 2,500 feet deep, \$17,500 mob / demob, plus \$6.50 / ft (subsurface plug)	In addition to surety for surface disturbance reclamation	
Drilling, > 7-inch diameter > 2,500 feet depth Unusual conditions (e.g. units with oil/gas)	A third-party estimate may be needed.	In addition to surety for surface disturbance reclamation	
Portals, 36 sq. ft. area max	\$2,000 / portal	In addition to above surety	
Shafts, 6 ft. diameter max	\$3,000 / shaft	In addition to above surety DNR	
Large Portals / Shafts, Structures	Site-specific	In addition to above surety	

Small Mining Operation Five or Fewer Acres Using an Excavator

Mine Size /	2023 Standard Surety Requirements		
Features	3-year escalation (thru 2026)	Comments	
	5-year escalation (thru 2028)		
"Mini" Mine	\$5,200 (3-year escalation)	Up to two acres	
	\$5,700 (5-year escalation)		
1 Acre (or less)	\$11,600 (3-year escalation)	Minimum amount required; Includes \$3,200 mob/demob.	
	\$13,600 (5-year escalation)	includes \$5,200 mob/demob.	
Additional Acres	\$7,500 / acre (3-year escalation)	Partial acres rounded to next acre	
(5 total acres max)	\$8,800 / acre (5-year escalation)	(e.g. 1.2 acres = 2 acres)	
Cumulative Amount	\$41,600 (3-year escalation)	\$7,200 difference between 3	
(5 acres, < 50 miles)	\$48,800 (5-year escalation)	and 5 year escalation	
	3-year escalation:		
	< 50 miles (one way) - no additional surety		
	51 - 100 miles (one way) - add \$1,900	In addition to surety for surface disturbance reclamation	
	101 - 150 miles (one way) - add \$4,100		
Additional Mob /	151 - 200 miles (one way) - add \$5,600		
Demob	5-year escalation:		
	< 50 miles (one way) - no additional surety		
	51 - 100 miles (one way) - add \$2,200		
	101 - 150 miles (one way) - add \$4,800		
	151 - 200 miles (one way) - add \$6,500		
Portals,	\$2,000 / portal	In addition to above supports	
36 sq. ft. area max	\$2,000 / portai	In addition to above surety	
Shafts,	\$3,000 / shaft	In addition to above surety	
6 ft. diameter max	\$5,000 / Shart		
Large Portals / Shafts, Structures	Site-specific	In addition to above surety	
Revegetation in conjunction with Earthwork (Estimated Seed Costs)	\$600 / acre	In addition to above surety	
Revegetation (includes ripping)	\$2,000 / acre	In addition to above surety	



Small Mining Operation over Five to Ten Acres Using a Dozer

Mine Size / Features	2023 Standard Surety Requirements	Comments	
	3-year escalation (thru 2026)		
	5-year escalation (thru 2028)		
6 Acres	\$57,800 (3-year escalation)	Minimum amount required; Includes \$7,900 mob/demob.	
	\$67,800 (5-year escalation)		
Additional Acres	\$10,400 / acre (3-year escalation)	Partial acres rounded to next acre (e.g. 5.2 acres = 6 acres)	
(10 total acres max)	\$12,100 / acre (5-year escalation)		
Cumulative Amount	\$99,400 (3-year escalation)	\$16,800 difference between 3	
(10 acres, < 50 miles)	\$116,200 (5-year escalation)	and 5 year escalation	
	3-year escalation:		
	< 50 miles (one way) - no additional surety		
	51 - 100 miles (one way) - add \$3,000		
	101 - 150 miles (one way) - add \$5,900	In addition to surety for surface disturbance reclamation	
Additional Mob / Demob	151 - 200 miles (one way) - add \$8,900		
	5-year escalation:		
	< 50 miles (one way) - no additional surety		
	51 - 100 miles (one way) - add \$3,500		
	101 - 150 miles (one way) - add \$6,900		
	151 - 200 miles (one way) - add \$10,400		
Portals,	\$2,000 / moutol	Y 1300 . 1	
36 sq. ft. area max	\$2,000 / portal	In addition to above surety	
Shafts,	\$2,000 / chaft	In addition to above assets	
6 ft. diameter max	\$3,000 / shaft	In addition to above surety	
Large Portals / Shafts, Structures	Site-specific	In addition to above surety	



Small Mining Operation over Ten to Fifteen Acres Using an Excavator, Dozer, & Truck

Mine Size /	2023 Standard Surety Requirements	Comments
Features	3-year escalation (thru 2026)	
	5-year escalation (thru 2028)	
11 Acres	\$121,700 (3-year escalation)	Minimum amount required;
Acres	\$142,200 (5-year escalation)	Includes \$8,300 mob/demob.
Additional Acres	\$11,800 / acre (3-year escalation)	Partial acres rounded to next acre
(15 total acres max)	\$13,700 / acre (5-year escalation)	(e.g. $10.2 \text{ acres} = 11 \text{ acres}$)
Cumulative Amount	\$168,900 (3-year escalation)	\$28,100 difference between 3
(15 acres, < 50 miles)	\$197,000 (5-year escalation)	and 5 year escalation
	3-year escalation:	
	< 50 miles (one way) - no additional surety	
	51 - 100 miles (one way) - add \$5,400	In addition to surety for surface disturbance reclamation
	101 - 150 miles (one way) - add \$11,100	
Additional Mob /	151 - 200 miles (one way) - add \$16,100	
Demob	5-year escalation:	
	< 50 miles (one way) - no additional surety	
	51 - 100 miles (one way) - add \$6,300	
	101 - 150 miles (one way) - add \$13,000	
	151 - 200 miles (one way) - add \$18,800	
Portals,	\$2,000 / portal	In addition to above surety
36 sq. ft. area max	\$2,000 / portai	
Shafts,	\$3,000 / shaft	In addition to above surety
6 ft. diameter max	φ3,000 / Shart	
Large Portals / Shafts, Structures	Site-specific	In addition to above surety



Small Mining Operation over Fifteen to Twenty Acres Using an Excavator, Dozer, & Truck

Mine Size /	2023 Standard Surety Requirements		Comments	
Features	3-year escalation (thru 2026)			
1 catales	5-year escalation (thru 2028)			
16 Acres	\$196,400	(3-year escalation)	Minimum amount required;	
16 Acres	\$229,200	(5-year escalation)	Includes \$11,100 mob/demob.	
Additional Acres	\$13,500 / acre	(3-year escalation)	Partial acres rounded to next acre	
(20 total acres max)	\$15,800 / acre	(5-year escalation)	(e.g. 5.2 acres = 6 acres)	
Cumulative Amount	\$250,400	(3-year escalation)	\$42,000 difference between 3	
(20 acres, < 50 miles)	\$292,400	(5-year escalation)	and 5 year escalation	
	3-year escalation:			
	< 50 miles (one	way) - no additional surety		
	51 - 100 miles (one way) - add \$7,000 101 - 150 miles (one way) - add \$14,200		In addition to surety for surface disturbance reclamation	
Additional Mob /	151 - 200 miles (one way) - add \$20,800			
Demob	5-year escalation:			
	< 50 miles (one way) - no additional surety			
	51 - 100 miles (one way) - add \$8,200			
	101 - 150 miles (one way) - add \$16,700			
	151 - 200 miles (one way) - add \$24,400			
Portals,	¢2.000 / 1		In addition to about assets	
36 sq. ft. area max	\$2,000 / portal		In addition to above surety	
Shafts,	\$2,000 / chaft		In addition to above surety	
6 ft. diameter max	\$3,000 / shaft		in addition to above surety	
Large Portals / Shafts, Structures	Site-specific		In addition to above surety	

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